

What is claimed is:

1. A living body information measuring system comprising

a measuring device including measuring means for measuring living body information and transmitting means for transmitting living body information data supplied from the measuring means based on the living body information, and

a data collecting device for receiving the living body information data from the measuring device, in which

the data collecting device transmits a data transfer request command including type of the living body information data and a first data transmission schedule time that is a schedule time for transmitting the next data of the living body information data.

2. The living body information measuring system according to Claim 1, wherein the measuring device cuts off power of a receiver after receiving the data transfer request command from the data collecting device.

3. The living body information measuring system according to Claim 2, wherein the measuring device cuts off the power of the receiver, and turns on the power of the receiver after elapse of the first data transmission

schedule time.

4. The living body information measuring system according to Claim 3, wherein the data collecting device has a function of determining the first data transmission schedule time within the data transfer request command, based on a value of the living body information data received from the measuring device.

5. The living body information measuring system according to Claim 4, wherein the data collecting device has a function of setting the first data transmission schedule time within the data transfer request command at a larger value according as smaller is a difference between a medium value required from an upper limit and a lower limit previously set in a storage within the data collecting device and the value of the living body information data received from the measuring device.

6. The living body information measuring system according to Claim 4, wherein

the data collecting device has a function of setting the first data transmission schedule time within the data transfer request command at a larger value according as dispersion of the living body information data received

from the measuring device is smaller, and

setting the first data transmission schedule time at a smaller value according as the dispersion is larger.

7. The living body information measuring system according to Claim 4, wherein

the data collecting device has a function of setting the first data transmission schedule time within the data transfer request command at a larger value according as a variation rate of the living body information data received from the measuring device is smaller, and

setting the first data transmission schedule time at a smaller value according as the variation rate is larger.

8. The living body information measuring system according to Claim 4, wherein the data collecting device has a function of determining the first data transmission schedule time within the data transfer request command, based on the time received from the measuring device.

9. The living body information measuring system according to Claim 4, wherein the measuring device transmits the living body information data to the data collecting device at arbitrary timing when the living body information measured by the measuring device is larger than a predetermined upper limit previously set in

the storage within the measuring device or smaller than a lower limit.

10. The living body information measuring system according to Claim 3, wherein

when the measuring device does not receive any data transfer request command from the data collecting device for a predetermined period of time,

the measuring device includes operation change judging means for extending measuring sampling intervals for measuring the living body information, and

storing means for storing into the storage the living body information during a period of receiving none of the data transfer request command from the data collecting device.

11. The living body information measuring system according to Claim 3, wherein when the measuring device does not receive the data transfer request command from the data collecting device for a predetermined period of time, the measuring device performs an intermittent receiving operation that is regular repetition of power on/off of the receiver.

12. The living body information measuring system

according to Claim 11, wherein

when the measuring device receives a data transfer request command from the data collecting device during the intermittent receiving operation,

the measuring device changes the receiver to a continuous receiving operation,

performs a judgment for turning the measuring sampling intervals of the living body information measuring means to an ordinary state, and

transmits the data stored in the storage together with the latest living body information to the data collecting device.

13. The living body information measuring system according to Claim 11, wherein the measuring device determines receiving intervals of the intermittent receiving period and the sampling intervals of the living body information sensor, based on the living body information measured by a living body information sensor within the measuring device, during the intermittent receiving operation.

14. The living body information measuring system according to Claim 13, wherein

according as the living body information measured by

the living body information sensor approaches the predetermined upper limit or lower limit,

the measuring device sets the intermittent receiving time intervals and the sampling intervals at shorter periods than reference values of the intermittent receiving time, and

according as the living body information approaches the medium value of the upper limit and the lower limit, the measuring device sets the above intervals close to the reference values at the intermittent receiving time.

15. The living body measuring system according to Claim 13, wherein

according as the dispersion of the living body information measured by the living body information sensor is larger,

the measuring device sets the intermittent receiving time intervals and the sampling intervals of the living body sensor at shorter periods than the predetermined reference values at the intermittent receiving time, and

according as the dispersion of the living body information data is smaller, the measuring device sets the above intervals close to the reference values at the intermittent receiving time.

16. The living body measuring system according to Claim 13, wherein

according as the variation rate of the living body information measured by the living body information sensor is larger, the measuring device sets the intermittent receiving time intervals and the sampling intervals of the sensor at shorter periods than the predetermined reference values at the intermittent receiving time, and

according as the variation rate of the living body information data is smaller,

the measuring device sets the above intervals close to the reference values at the intermittent receiving time.

17. The living body information measuring system according to Claim 13, wherein the measuring device determines the intermittent receiving time intervals and the sampling intervals of the sensor based on the sampling time by the living body information sensor.

18. The living body information measuring system according to Claim 3, wherein the measuring device includes a second data transmission schedule time determined by the measuring device in response data to

the data transfer request command.

19. The living body information measuring system according to Claim 18, wherein the data collecting device determines the data transmission schedule time based on the second data transmission schedule time and the measurement data transmitted from the measuring device.

20. The living body information measuring system according to Claim 19, wherein

the measuring device has a function of setting the second data transmission schedule time of the response data at a larger value according as smaller is a difference between the measurement data and the medium value obtained from the upper limit and the lower limit previously set in the storage within the measuring device, and

setting the second data transmission schedule time at a smaller value according as the difference is larger.

21. The living body information measuring system according to Claim 19, wherein

the measuring device has a function of setting the second data transmission schedule time at a larger value according as the dispersion of the measurement data is

smaller, and

setting the second data transmission schedule time at a smaller value according as the dispersion is larger.

22. The living body information measuring system according to Claim 19, wherein

the measuring device has a function of setting the second data transmission schedule time at a larger value according as the variation rate of the measurement data is smaller, and

setting the second data transmission schedule time at a smaller value according as the variation rate is larger.

23. The living body information system according to Claim 19, wherein the measuring device has a function of determining the second data transmission schedule time based on a time of measuring the measurement data.

24. The living body information measuring system according to Claim 19, wherein the data collecting device transmits the second data transmission schedule time received from the measuring device together with the data transmission schedule time, to the measuring device.

25. The living body information measuring system according to Claim 3, wherein the living body information measuring sensor of the measuring device detects a pulse.

26. The living body information measuring system according to Claim 3, wherein the living body information measuring sensor of the measuring device detects acceleration of a living body's movement.

27. The living body information measuring system according to Claim 3, wherein the living body information measuring sensor of the measuring device detects a breathing rate.

28. The living body information measuring system according to Claim 3, wherein the data collecting device is connected by one and more external lines.

transfer schedule time of the next data transfer request command

29. A command transmission method of the data collecting device, characterized by comprising a step of calculating the first data transmission schedule time to the measuring device, a step of including a value of the first data

transmission schedule time in the data transfer request command, and

a step of transmitting a data transfer request command.

30. A controlling method of the measuring device, characterized by comprising

a step of receiving the data transfer request command transmitted from the data collecting device,

a step of transmitting the requested measurement data, and

a step of cutting off power of the receiver, until the first data transmission schedule time of the data transfer request command, after transmission of the living body information data.

31. The data collecting device, characterized by comprising

calculating means for calculating the first data transmission schedule time to the measuring device, and

command creating means for including the value of the first data transmission schedule time in the data transfer request command.

32. A measuring device, characterized by

a receiver for receiving the data transfer request command transmitted from the data collecting device,

a transmitter for transmitting the requested measurement data, and

a power on/off circuit for cutting off the power of the receiver until the first data transmission schedule time of the data transfer request command.

33. A measuring device, characterized by comprising transmission schedule time calculating means for calculating the second data transmission schedule time,

living body information data creating means for including the value of the second data transmission schedule time in the living body information data, and

controlling means for cutting off power of a transmitter/receiver, until the first data transmission schedule time, after transmission of the living body information data.